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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/617,171

07/11/2003

Ki-Tag Jeong

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06/17/2005

STAAS & HALSEY LLP

SUITE 700

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WASHINGTON, DC 20005

EXAMINER

CHEN, TIANJIE

ART UNIT

PAPER NUMBER

2652

DATE MAILED: 06/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/617,171

Applicant(s)

JEONG, KI-TAG

Examiner

Tianjie Chen

Art Unit

2652

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-9, 11-14 and 16-19 is/are rejected.
- 7) ☒ Claim(s) 5, 10, 15 and 20 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 01/12/2004, 09/27/2004, 09/27/2004
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## ***Non-Final Rejection***

### ***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1 are rejected under 35 U.S.C. 102(e) as being anticipated by Takashima (US 6,787,941).

Claims 1, 6, 11, and 16; Takashima shows an actuator of a hard disk drive in Fig. 1, having a base plate and a voice coil motor, to move a magnetic head to record and reproduce data with respect to a disk to a predetermined position on the disk, including: a suspension supporting a slider, where the magnetic head is mounted; and an arm included on the base plate of the hard disk drive to pivot, the arm including the suspension at a leading end portion of the arm and a coil 7 (Fig. 2) of the voice coil motor coupled to a rear end portion of the arm, wherein the coil is coupled to the rear end portion of the arm by an outer mold 11 formed to encompass an outer circumference of the coil, an inner mold (the portion surrounding mark 27, Fig. 3) formed inside the coil, and a connection mold connecting the outer mold and the inner

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mold is formed at least part of a surface of a non-effective portion of the coil except for an effective portion arranged to be perpendicular to a direction in which the arm pivots.

Claim 6, Takashima also shows a hard disk drive that reproduces data stored in a disk or records data on the disk by using a magnetic head, the hard disk drive including: an actuator including an arm included on a base plate of the hard disk drive to pivot and a suspension at a leading end portion of the arm and supporting a slider on which the magnetic head is mounted; and a voice coil motor including a coil coupled to a rear end portion of the arm and a magnet arranged to be separated a predetermined distance from the coil and to face at least one of upper and lower surfaces of the coil, and pivoting the actuator in a predetermined direction by the interaction between current flowing through the coil and a magnetic field formed by the magnet.

Claims 2, 7, 12, and 17; Takashima further shows that the connecting mold is formed at an entire surface of the non-effective portion of the coil.

Claims 3, 8, 13, and 18; Takashima further shows that the connection mold is formed in a middle portion along a lengthwise direction of the non-effective portion of the coil.

Claims 4, 9, 14, and 19; Takashima further shows that the connection mold is formed at at least two positions along a lengthwise direction of the non-effective portion of the coil.

***Allowable Subject Matter***

3. Claims 5, 10, 15, and 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

- With regard to claims 5, 10, 15, and 20; as the closest reference, Takashima (US 6,787,941) discloses an actuator of a hard disk drive, wherein the coil is coupled to the rear end portion of an arm by an outer mold formed to encompass an outer circumference of the coil, an inner mold formed inside the coil, and a connection mold connecting the outer mold and the inner mold is formed at least part of a surface of a non-effective portion of the coil except for an effective portion arranged to be perpendicular to a direction in which the arm pivots, and the connecting mold is formed on the upper surface of the non-effective portion of the coil; **but fails to disclose** that the connecting mold is also formed on the lower surface of the non-effective portion of the coil.
- Applicant asserts: the present invention provides an actuator in which a connection mold that connects the outer mold and the inner mold with respect to the coil is formed to increase the coupling force between the arm and the coil of the actuator so that a dynamic characteristic of the actuator is improved (Specification, p. 4).

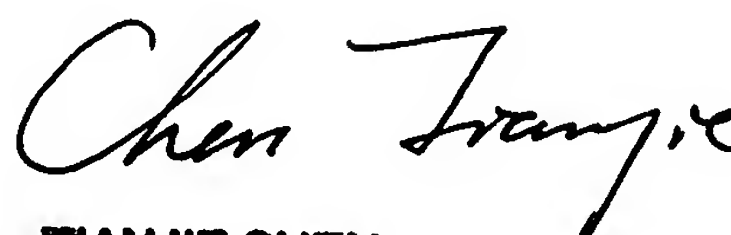
**Conclusion**

4. The prior art made of record in PTO-892 Form and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tianjie Chen whose telephone number is 571-272-7570. The examiner can normally be reached on 8:00-4:30, Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa Nguyen can be reached on 571-272-7579. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
**TIANJIE CHEN**  
**PRIMARY EXAMINER**